ORDINANCE NO. 2008-125 - SEWER

AN ORDINANCE APPROVING THE 2008 SEWER CAPITAL IMPROVEMENT PLAN.

BE IT ORDAINED BY THE COUNTY COUNCIL OF KERSHAW COUNTY, SOUTH CAROLINA, IN MEETING DULY ASSEMBLED:

ARTICLE I

FINDINGS OF FACT

As incident to the adoption of this Ordinance, the County Council of Kershaw County (the "Council"), the governing body of Kershaw County, South Carolina (the "County"), finds each fact stated herein is true and correct.

Section 1.01

1. The County is a body politic and a political subdivision of the State of South Carolina. The Council is the governing body of the County.

2. Pursuant to Sections 44-55-1410 (2006) and 4-9-30(5) of the Code of Laws of South Carolina, 1976, and a favorable referendum vote of the people of Kershaw County, at an election held on November 5, 1996, the County is authorized to acquire, construct, improve, enlarge, operate and maintain within the County a system for the collection, treatment and disposition of sewage and to place into effect schedules of rates and charges for the use of these sewer facilities.

3. By Ordinance dated June 12, 2007, Kershaw County Council created the Kershaw County Sewer District, comprised of the entire unincorporated area of Kershaw County (the "District") to provide sewer service in the unincorporated areas of Kershaw County.

4. By Ordinance dated August 14, 2007 the Kershaw County Council adopted the Comprehensive Plan for Kershaw County 2006-2016, which was the ten year update to the County's Comprehensive Plan. One of the key recommendations of the Comprehensive Plan was the development of a five year Capital Improvement Program (the "CIP"), which was duly developed by the Planning Commission and received from the Planning Commission by Kershaw County Council by Ordinance dated May 13, 2008.

5. The CIP identified approximately $20.5 million in capital improvements, at current cost levels, that will need to be constructed in the five year period 2008-2013 to the sewer treatment system operated by the County. The CIP indicates that an additional 8,200

Equivalent Residential Users, or "ERUs," capacity will be provided by the County sewer system (the "System") during that time. The term "Equivalent Residential User" has the same meaning as "Residential Development Unit," or "RDU," as used in connection with the imposition of Sewer Impact Fees by the County.

6. The Council has reviewed the Kershaw County, South Carolina, Five-year Sewer Capital Improvement Plan issued by the Utilities Department of Kershaw County, as incorporated verbatim into the CIP as Appendix E thereto and as Exhibit A to this Ordinance. The Council has also reviewed the Sewer Impact Fees Report prepared by the County's Utilities Department as of July 16, 2008, which is Exhibit B to this Ordinance and which updates the costs of the improvements identified in the Plan to account for inflation and financing costs, bringing the anticipated total cost to $28,073,683.61. The Council finds the Plan, as amended by Exhibit B attached hereto, to be appropriate and sufficient to comply with Section 6-1-1080, S.C. Code of Laws, 1976, as amended.

ARTICLE II

2008 SEWER CAPITAL IMPROVEMENT PLAN

Section 2.01 2008 Sewer Capital Improvement Plan Adopted

1. Kershaw County hereby approves and adopts the Kershaw County, South Carolina, Five-Year Sewer Capital Improvement Plan, amended through April 22, 2008, which was Appendix E, entitled "Kershaw County Public Sewer CIP Report," to the Five-year Capital Improvement Program received by Ordinance 117.2008 adopted on May 13, 2008, and which Plan is attached hereto as Exhibit A, together with Exhibit B attached hereto which contains the estimated cost revisions to that Plan though July 16, 2008, as the current Sewer Capital Improvement Plan approved and adopted by the County in satisfaction of the requirements of Section 6-1-1080 of the Code of Laws of South Carolina, 1976. The County, acting through its Utilities Department, reserves the right to amend or modify the plan, or to change the designated improvements, sequencing of improvements or scope of improvements at any time with or without amending this ordinance or reissuing the plan.

2. This Ordinance shall take effect immediately upon adoption.

DONE BY VOTE OF A POSITIVE MAJORITY OF THE MEMBERS OF KERSHAW COUNTY COUNCIL IN MEETING DULY ASSEMBLED, this 12th day of August, 2008.

KERSHAW COUNTY COUNCIL

[SEAL]

By: _____
Chairman, Kershaw County Council

ATTEST:

_____
Clerk, Kershaw County Council

1st Reading: June 24, 2008
2nd Reading: July 08, 2008
Public Hearing: August 12, 2008
3rd Reading: August 12, 2008

I certify that the notice of the public hearing held in this matter was duly advertised in proper statutory form in a newspaper of general circulation in Kershaw County, South Carolina at least 30 days prior to the holding of said hearing.

Clerk, Kershaw County Council

EXHIBIT A

TO AN ORDINANCE APPROVING
THE 2008 SEWER CAPITAL IMPROVEMENT PLAN

APPENDIX E
KERSHAW COUNTY PUBLIC SEWER
CIP REPORT

Purpose and Scope

The purpose of this document is to outline a 5-year capital improvements plan for the Kershaw County wastewater collection system. During recent years the region has experienced rapid growth due to its proximity to the Columbia Metropolitan area. As documented in the Wastewater Master Plan for Kershaw County completed in November of 2000 by Hayes, Seay, Mattern & Mattern, Inc, the majority of this growth has been centralized in the south-west section of the county in the areas surrounding Lugoff and Elgin. The continued growth is dependent on the availability of essential infrastructure which includes wastewater collection, transportation, and treatment facilities. Based on the pattern of growth and the existing infrastructure, this capital improvements plan will focus on this section of the county.

The capital improvements plan (program) as outlined herein will base the plan on wastewater tap requests received to date by Kershaw County with a 10% growth factor for additional growth in the area. Additionally, the plan will include wastewater flows from industries which the County anticipates tying in to the system within the next five years.

This plan is drafted with the specific intention that it serve as the capital improvement plan required by Section 6-1-1080(1) of the Code of Laws of South Carolina (The Development Impact Fee Act), 1976, as a condition for the imposition of a development impact fee by water and wastewater utilities. As required by Sections 6-1-920(2) and (3) of that statute, a "capital improvement plan" must identify the improvements with a useful life of five years or more which are necessary to increase the service capacity of a public facility for which development impact fees may be used as a funding source. Such plans are otherwise exempt from the provisions of Chapter 1 of Article 6 by express provisions of Section 6-1-1080.

This document, which outlines a five-year capital improvement plan for the Kershaw County wastewater collection system is not a recommendation of a specific sewer impact fee structure.

Existing System

Kershaw County owns and operates one of three major public wastewater treatment systems within the county. The Kershaw County WWTP is currently permitted for a discharge of 0.72 MGD to the Wateree River; however, the county has recently secured a construction permit for the expansion of this WWTP to 1.25 MGD expandable to 2.0 MGD with little modification. These improvements are expected to begin during March of 2008 with an expected completion within 18 months of initiation. In addition to ownership of the WWTP, Kershaw County maintains 23 pump stations throughout the service area, force mains ranging in size from 2-½" to 10", and gravity sewer ranging in size from 6" to 18". As currently configured the wastewater system transmits all wastewater flows west of the Town of Lugoff through a series of pump stations along Highway 1. Each of these large pump stations are currently designed for a rated capacity of 350 gpm. The current configuration of the Kershaw County wastewater collection system is outlined in **Exhibit 1**. Due to the rapid growth in this area it is necessary that the County open a new corridor for transportation of wastewater from west to east. The proposed route

route for this additional corridor is outlined in Exhibit 1. The individual projects and the timing of these projects are outlined in the following sections.

Estimated Wastewater Flows

As previously mentioned, the south and west portions of Kershaw County are currently experiencing heavy growth, as outlined in the tap requests summarized below. Based on this estimate the projected increase in wastewater flows in the region due to residential and commercial growth is 934,640 gallons per day. In addition to the residential and commercial growth, it is anticipated that Kershaw County will connect several industries to its wastewater system within the next five years (Kawashima, Clariant, and Cogsdill Tools). As outlined in the table below the overall increase in wastewater flows over the next five years is anticipated to reach in excess of 2,000,000 gallons per day. With increases of this magnitude it is imperative that the County outline a feasible plan for collection and transmission of this wastewater.

Tap Type	# of Taps	Requested Capacity	TMS #
Residential	35	14,000	310-00-00-080
Residential	50	20,000	310-00-00-085
Residential	180	72,000	358-00-00-011
Residential	220	88,000	309-00-00-053
Residential	74	29,600	281-00-00-035
Residential	79	31,600	335-00-00-005
Residential	280	112,000	358-00-00-111
Residential	49	19,600	296-00-00-072
Residential	4	1,600	335-00-00-085
Residential	20	8,000	308-00-00-060
Residential	200	80,000	336-00-00-115
Commercial	2	14,400	283-00-00-013
Commercial	6	2,400	283-00-00-013
Commercial	1	2,240	335-18-00-013
Residential	50	20,000	
Residential	30	12,000	296-18-00-024
Residential	260	104,000	350-00-00-038
Residential	450	180,000	281-00-00-044
Residential	1	400	310-00-00-060
Residential	1	400	
Residential	180	72,000	338-00-00-023
Commercial/Residential	105	50,000	
Residential	1	400	
Total Commercial/Residential Flows		**934,640**	
Equivalent Residential Users		**2,337**	
	Anticipated Wastewater Flows		
Kawashima	600,000		
Clariant	500,000		
Cogsdill Tool	20,000		
Total Industrial Flows		**1,120,000**	
Equivalent Residential Users		**2,800**	

Existing System Deficiencies

Kelsney Ridge/Steven Campbell Drive Development

As outlined in the projected flows above, there are two large developments proposed in the area comprising Tax Map #358 along Kelsney Ridge Road and Steven Campbell Drive. In total the proposed development is for an average daily flow of 184,000 gpd, or a peak flow of 320 gpm. Due to the existing grade in the area, the construction of two new pump stations would be necessary to provide service to the proposed developments. The closest existing infrastructure to the proposed development is the

Elgin IGA pump station which has a rated capacity of 200 gpm. However, due to capacity issues at the IGA pump station it is proposed for the force main from the developments to bypass the IGA pump station and manifold into the force main from the existing White Pond Road pump station. Initially this sewer would be directed to the Town of Elgin pump station until such times that the run times at the Town of Elgin pump station become too large. The flow would then be reversed to send the wastewater to the existing White Pond Road pump station. Although this will be a long run of force main the route is downhill. Because these upgrades are necessary for future growth it is anticipated that these costs would be offset through the collection of sewer impact fees.

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	200 gpm Duplex Pump Station	1	ls	$200,000.00	$200,000
2	Force Main				
	6-inch PVC	2,900	lf	$25.00	$72,500
	6-inch DIP	100	lf	$35.00	$3,500
	Air Release Valves	1	ea	$4,000.00	$4,000
3	320 gpm Duplex Pump Station	1	ls	$250,000.00	$250,000
4	Force Main				
	8-inch PVC	9,750	lf	$30.00	$292,500
	8-inch DIP	250	lf	$40.00	$10,000
	Air Release Valves	1	ea	$4,000.00	$4,000
5	Connection to Gravity Sewer	1	ls	$5,000.00	$5,000
				SUBTOTAL	$841,500
				ENGINEERING & CONTINGENCY (25%)	$210,375
				TOTAL	$1,051,875

Elgin #4 Pump Station

The Elgin #4 pump station is currently designed for 200 gpm. The existing pump station receives wastewater from the Town of Elgin pump station, a pump station serving Pine Forest, Leslie M. Stover School and other existing development in the area. In addition, there is approximately 31,600 gpd of sewer capacity being requested by developers in the area. Due to the volume of wastewater being transmitted to this system it is recommended that the pumps and panels be upgraded to supply a pumping capacity of 350 gpm. Additionally, the wet well will need to be rehabilitated simultaneously due to aggressive wastewater entering the pump station. The estimated costs are outlined in the table below. Because these upgrades are necessary for future growth it is anticipated that these costs would be offset through the collection of sewer impact fees.

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	Upgrade of Pumps and Panels	1	ls	$40,000.00	$40,000
2	Rehabilitation of Wetwell	1	ls	$20,000.00	$20,000
				SUBTOTAL	$60,000
				ENGINEERING & CONTINGENCY (25%)	$15,000
				TOTAL	**$75,000**

Elgin #2 Pump Station

The Elgin #2 pump station is a submersible duplex pump station with a design capacity currently of 350 gpm which is transmitted through an 8-inch force main. Based on existing data the pumps run for up to 140 minutes a day each, which correlates to an existing wastewater flow at the pump station of 98,000 gpd. According to tap requests received by the County there is an additional 96,000 gpd of wastewater flow anticipated from new development in the area. Based on these flows and the need to provide adequate capacity for wastewater collected within the Town of Elgin it is recommended that this pump station be upgraded to a capacity of 600 gpm. At these increased flows, the capacity of the receptor gravity sewer is inadequate. Therefore, it is recommended that the force main from this pump station be extended to bypass this gravity sewer. The estimated costs are outlined in the table below. Because these upgrades are necessary for future growth it is anticipated that these costs would be offset through the collection of sewer impact fees.

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	600 gpm Duplex Pump Station	1	ls	$300,000.00	$300,000
2	Force Main				
	8-Inch PVC	4,100	lf	$30.00	$123,000
	8-Inch DIP	400	lf	$40.00	$16,000
	Air Release Valves	1	ea	$4,000.00	$4,000
3	Connection to Gravity Sewer	1	ls	$5,000.00	$5,000
				SUBTOTAL	$448,000
				ENGINEERING & CONTINGENCY (25%)	$112,000
				TOTAL	**$560,000**

Elgin #1 Pump Station

The Elgin #1 pump station is a submersible duplex pump station with a design capacity currently of 350 gpm which is transmitted through an 8-inch force main. Based on existing data the pumps run for up to 260 minutes a day each, which correlates to an existing wastewater flow at the pump station of 182,000 gpd. According to tap requests received by the County there is an additional 20,000 gpd of wastewater flow anticipated from new development in the area. Based on these flows and the need to provide adequate capacity for wastewater collected within the Town of Elgin and in the area surrounding Elgin #2 pump station, it is recommended that this pump station be upgraded to a capacity of 800 gpm. At these increased flows, the capacity of the receptor gravity sewer is inadequate. Therefore, it is recommended that the force main from this pump station be extended to the large 18-inch sewer

Interceptor north of the Baldwin pump station. The estimated costs are outlined in the table below. Because these upgrades are necessary for future growth it is anticipated that these costs would be offset through the collection of sewer impact fees.

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	800 gpm Duplex Pump Station	1	ls	$400,000.00	$400,000
2	Force Main				
	10-Inch PVC	13,000	lf	$35.00	$455,000
	10-Inch DIP	1,500	lf	$45.00	$67,500
	Air Release Valves	1	ea	$4,000.00	$4,000
3	Connection to Gravity Sewer	1	ls	$5,000.00	$5,000
				SUBTOTAL	$931,500
				ENGINEERING & CONTINGENCY (25%)	$232,875
				TOTAL	$1,164,375

Baldwin Pump Station

The existing Baldwin pump station is duplex suction lift pump station which currently experiences high run-times due to increased flows to the pump station. It is anticipated that these issues will be eliminated by extending the force main from Elgin #1 pump station around the Baldwin pumps. Although this routing eliminates the flow concerns at the pump station, the station has been in service for nearly twenty years and is in need of replacement. The estimated cost of this replacement is summarized in the table below. Because these costs are consider a maintenance cost it is anticipated that these costs would be offset through the operations budget.

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	Replacement of Existing PS	1	ls	$200,000.00	$200,000
				SUBTOTAL	$200,000
				ENGINEERING & CONTINGENCY (25%)	$50,000
				TOTAL	$250,000

Rabon's Crossroads Development

As outlined in the projected flows above, there are two large developments that have requested sewer service near Highway 34 northwest of the Town of Lugoff. These developments will include a potential 209,600 gpd of wastewater generated in the area. The County does not have existing sewer service in the area; therefore, it will be necessary to extend gravity sewer to an area near the developments. The estimated costs for implementing this extension are included in the table below. This gravity sewer will transmit the wastewater from the area to an existing 12-inch gravity sewer line. Because these upgrades are necessary for future growth it is anticipated that these costs would be offset through the collection of sewer impact fees.

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	Gravity Sewer				
	12-Inch PVC	6,400	lf	$75.00	$480,000
	12-Inch DIP	600	lf	$85.00	$51,000
	Jack & Bore	150	lf	$300.00	$45,000
2	Manholes	30	ls	$2,500.00	$75,000
				SUBTOTAL	$651,000
				ENGINEERING & CONTINGENCY (25%)	$162,750
				TOTAL	**$813,750**

Clariant Pump Station

As previously mentioned it is anticipated that Clariant will likely tie on to the sewer system in the near future. The transportation of this wastewater flow will require a new major transmission line from west to east along Whiting Way to reach the WWTP. Discussions with Clariant personnel indicated that the industry could send a peak of 500,000 gpd to the system. Therefore, a new pump station with adequate capacity is recommended with force main routed to a low point along Whiting Way to another new pump station. The estimated costs for implementing this extension are included in the table below. Because these upgrades are necessary for future industrial flow and will allow additional residential growth throughout the system it is anticipated that these costs could be offset through the collection of sewer impact fees and grants.

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	350 gpm Duplex Pump Station	1	ls	$240,000.00	$240,000
2	Force Main				
	8-Inch PVC	4,000	lf	$30.00	$120,000
	8-Inch DIP	400	lf	$40.00	$16,000
	Air Release Valves	1	ea	$4,000.00	$4,000
				SUBTOTAL	$380,000
				ENGINEERING & CONTINGENCY (25%)	$95,000
				TOTAL	**$475,000**

Whiting Way Pump Station

The proposed Whiting Way pump station would collect wastewater from the Clariant pump station, the White Pond Road pump station, and the Highway 12 pump station. The new pump station would transmit the wastewater from these areas to a new pump station near Kawashima and Cogsdill Tools for final transmission to the influent pump station. The estimated costs for implementing this extension are included in the table below. Because these upgrades are necessary for future industrial flow and will allow additional residential growth throughout the system it is anticipated that these costs could be offset through the collection of sewer impact fees and grants.

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	1150 gpm Duplex Pump Station	1	ls	$550,000.00	$550,000
2	Force Main				
	12-Inch PVC	27,000	lf	$45.00	$1,215,000
	12-Inch DIP	500	lf	$55.00	$27,500
	Directional Bore	200	lf	$250.00	$50,000
	Air Release Valves	3	ea	$4,000.00	$12,000
				SUBTOTAL	$1,854,500
				ENGINEERING & CONTINGENCY (25%)	$463,625
				TOTAL	$2,318,125

Kawashima Pump Station

As previously mentioned it is anticipated that Kawashima Tools will likely tie on to the sewer system in the near future. Discussions with Kawashima personnel indicated that the industry could send as much as 600,000 gpd to the collection system. Therefore, the proposed pump station at Kawashima will be sized with adequate capacity for this flow as well as the flow transmitted along Whiting Way from the Whiting Way pump station. This new pump station will transmit wastewater flows directly to the influent pump station for introduction to the WWTP. The estimated costs for implementing this extension are included in the table below. Because these upgrades are necessary for future industrial flow and will allow additional residential growth throughout the system it is anticipated that these costs could be offset through the collection of sewer impact fees and grants.

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	1850 gpm Duplex Pump Station	2	ls	$600,000.00	$1,200,000
2	Force Main				
	16-Inch PVC	26,000	lf	$55.00	$1,430,000
	16-Inch DIP	500	lf	$65.00	$32,500
	Directional Bore	200	lf	$300.00	$60,000
	Air Release Valves	2	ea	$4,000.00	$8,000
				SUBTOTAL	$2,730,500
				ENGINEERING & CONTINGENCY (25%)	$682,625
				TOTAL	$3,413,125

Influent Pump Station

Due to the rapid growth in the area and the increase in sewer capacity resulting from this growth, the existing influent pump station is grossly undersized. It is recommended that an entirely new pump station and force main paralleling the existing force main be installed. The influent pump station should have adequate capacity to transmit wastewater flows for the proposed 4.0 MGD WWTP. The estimated costs for implementing this extension are included in the table below. Because these upgrades are necessary for future development as well as industrial flow throughout the system it is anticipated that these costs could be offset through the collection of sewer impact fees and grants.

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	4.0 MGD Duplex Pump Station	1	ls	$1,000,000.00	$1,000,000
2	Force Main				
	24-Inch PVC	3,000	lf	$80.00	$240,000
	24-Inch DIP	300	lf	$90.00	$27,000
				SUBTOTAL	$1,267,000
				ENGINEERING & CONTINGENCY (25%)	$316,750
				TOTAL	$1,583,750

Expanded Wastewater Treatment Plant

As previously mentioned, Kershaw County is set to construct a new 1.25 MGD WWTP expandable to 2.0 MGD with little modifications. However due to the rapid growth of the area, the 2.0 MGD capacity will be consumed almost immediately upon completion. Therefore, the County will need to implement proposed modifications at the new WWTP to have the capability of handling the projected 4.0 MGD of wastewater. These improvements will include additional SBR basins, ultraviolet disinfection, and the installation of sludge dewatering operations. The estimated costs for implementing these upgrades are included in the table below. Because these upgrades are necessary for future development as well as industrial flow throughout the system it is anticipated that these costs could be offset through the collection of sewer impact fees and grants.

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	2.0 MGD Expansion	1	ls	$7,000,000.00	$7,000,000
				SUBTOTAL	$7,000,000
				ENGINEERING & CONTINGENCY (25%)	$1,750,000
				TOTAL	$8,750,000

Overview & Schedule

A review of the sewer tap requests and the probable schedule for development was reviewed to determine a probable schedule for the multiple capital improvements projects outlined above. Based on this review, the anticipated schedule for these projects is summarized below.

KELSNEY RIDGE/STEVEN CAMPBELL DRIVE	$	1,051,875	2009
ELGIN #4 PUMP STATION UPGRADE	$	75,000	2008
ELGIN #2 PUMP STATION UPGRADE	$	560,000	2011
ELGIN #1 PUMP STATION UPGRADE	$	1,164,375	2011
BALDWIN PUMP STATION REHABILITATION	$	250,000	2009
HIGHWAY 34 (RABON'S)	$	813,750	2009
CLARIANT PUMP STATION	$	475,000	2010
WHITING WAY PUMP STATION	$	2,318,125	2010
KAWASHIMA PUMP STATION	$	3,413,125	2010
INFLUENT PUMP STATION	$	1,583,750	2008
WWTP EXPANSION	$	8,750,000	2012-2013
TOTAL	$	20,455,000	

TABLES

PUBLIC SEWER ENTERPRISE FUND CIP

Public Sewer
Enterprise Fund
Capital Improvement Projects

Project Name	08-09	09-10	10-11	11-12	12-13
Elgin # 4 Pump Station Upgrade	$75,000				
Influent Pump Station	$1,583,750				
Kelsney Ridge/Steven Campbell Drive		$1,051,875			
Baldwin Pump Station Rehabilitation		$250,000			
Highway 34 (Rabon's)		$813,750			
Clariant Pump Station			$475,000		
Whiting Way Pump Station			$2,318,125		
Kawashima Pump Station			$3,413,125		
Elgin # 2 Pump Station Upgrade				$560,000	
Elgin # 1 Pump Station Upgrade				$1,164,375	
Waste Water Treatment Plant Expansion					$8,750,000
TOTALS	**$1,658,750**	**$2,115,625**	**$6,206,250**	**$1,724,375**	**$8,750,000**
GRAND TOTAL			**$20,455,000**		

EXHIBIT B
TO AN ORDINANCE APPROVING THE
2008 SEWER CAPITAL IMPROVEMENT PLAN

Kershaw County, South Carolina
Sewer Impact Fees Report
Prepared by the Kershaw County Utilities Department
July 16, 2008

Introduction

The Kershaw County South Carolina, Five-Year Sewer System Capital Improvement Plan, (the "Capital Improvement Plan") has identified approximately $20.5 million in capital improvements that will need to be constructed in the five year period 2008-2013 (the "Improvements") to allow the wastewater treatment system operated by Kershaw County (the "County") to serve the needs of the people of the County effectively, to promote continued development, and to protect the public health and environmental quality of the County.

Through Ordinance No. 118.2008, which is currently pending before County Council, the County is considering establishing sewer impacts fees for new customers and new industrial demands on the sewer system (the "Impact Fees"). This report is issued in satisfaction of the requirements imposed by Section 6-1-1080(2) of the Code of Laws of South Carolina, 1976, as a condition for the adoption of a development impact fee by water and wastewater utilities. Each of the requirements of that statute is addressed below:

Nature of the Cost Information Contained in the Capital Cost Plan

During consideration of Ordinance No. 118.2008, members of County Council (the "Council") questioned whether the $20.5 million cost estimate for the Improvements reflects the effects of inflation and financing cost on the cost of the assets to be constructed. After due inquiry, the Utilities Department (the "Department") has determined that the $20.5 million cost estimate is an engineering estimate only. It does not reflect any adjustment for inflation in construction costs occurring after the date the Capital Improvement Plan was compiled, nor does it reflect the additional cost of financing the Improvements pending collection of sewer impact fees.

The Utilities Department believes that it is important that these additional costs be included in the capital cost estimates of the Improvements. Sewer construction costs reflect the cost of steel, concrete, pumps, motors, pipe and diesel fuel for construction equipment, among other things. These items have experienced significant inflation since the Capital Improvements Plan was compiled, and such inflation is anticipated to continue during the five-year construction period. Prudent financial planning requires the Department to take inflation into account in recommending to the Council an appropriate level at which to establish sewer Impact Fees. Otherwise, new customers may pay less than their proportionate share of the actual cost of new service, and existing customers may be required to make up the deficit.

In addition, because Impact Fees will be collected after the Improvements are constructed, and because Impact Fees will not cover the entire capital cost of the

Improvements, the County will bear significant financing costs related to these capital improvements. Prudent financial management requires the Department to take these financing costs into account also in recommending to the Council an appropriate level for sewer impact fees.

Calculating Inflation and Financing Costs

The Utilities Department has asked the engineering firm that prepared the Capital Improve Plan to estimate the cost of the Improvements when those costs are adjusted for inflation and financing costs. As reflected in Appendix A, inflation in the cost of the Improvements has been estimated based on reasonable and appropriate estimates of current and future inflation in the cost of labor, materials, equipments and services related to sewer system construction.

Financing costs associated with the Improvements have been estimated based on the actual interest rates and issuance costs for the sewer system bonds recently issued by the County. As indicated in the Capital Improvement Plan, a volume of addition sewer capacity of approximately 3.28 million gallons per day will be added to the current plant capacity of 0.72 million gallons per day and represents an additional 8200 residential development units ("RDU"s. The County anticipates that Impact Fees related to these amounts will be received during the five-year planning horizon for the Capital Improvement Plan. The calculation contained in Appendix A reflects reasonable and appropriate assumptions regarding inflationary and financing rates/cost for the specified projects.

The Utilities Department has reviewed the calculations contained in Appendix A to this report and finds them to be reasonable and appropriate. Appendix A estimates that inflation and financing costs will add an additional $ 5,698,998 million to the engineering estimate contained in the Capital Improvements Plan. With adjustments for inflation and financing costs, the full cost of the Improvements to the County is reasonably estimated to be $ 28,073,684. For the reasons set forth above, the Utilities Department finds that it is appropriate to take these additional costs into account in recommending to the Council an appropriate level of sewer impact fees to establish in Ordinance No. 118.2008.

Payment of Impact Fee

For the reasons stated above, it would be fair and appropriate for the County to require new customers and new demands on the sewer system to defray a proportional share of the cost of the Improvements identified by the Capital Improvement Plan through Impact Fees. Those Impact Fees will be payable by all persons a) requesting sewer availability letters from the County; b) seeking to connect existing premises to the System; or c) increasing their authorized volumes of discharge into the System. In subdivisions where a sewer availability letter has been obtained and Impact Fees were paid at that time, an additional Impact Fee would not be charged at the time that individual homes were connected to the System.

Basis for Setting the Proportional Amount of the Impact Fee

To the extent that capital costs associated with service to new customers are not recovered through Impact Fees, those costs will be paid by existing customers of the System, including elderly or low or fixed income residents of the County. It is important the County appropriately balance the cost of expanding the System between existing customers and new development.

As indicated above, the need for the Impact Fee is established in the Capital Improvement Plan and the amount of the fee should be based on the total capital cost of the required Improvements as set forth above. When the full capital cost of the Improvements, including inflation and financing costs, is divided by RDUs anticipated to be sold, the capital cost for each new RDU exceeds $ 3,424. While the County has received grants toward payment for the Improvements, it is not anticipated that grants or other sources of funds apart from impact fees and revenues from existing customers will defray more than five percent (5%) of the cost of the Improvements. The Utilities Department has taken these potential grant payments into account in assessing and recommending an appropriate level on which County Council may set Impact Fees.

In establishing a proportional share of this amount to be charged as an Impact Fee, it is appropriate for the County to consider such factors as the value of sewer service to developers and owners of undeveloped property; the impact of sewer service availability on raw land values; the burden that Impact Fees place on developers, landowners and expanding industrial customers relative to existing customers; and the relative ability of existing customers versus developers, property owners and expanding industrial customers to pay for the capital cost of providing new capacity. It is also appropriate to assess the reasonableness of the proposed Impact Fee against the comparable fees charged by other sewer systems in the area for connections. Most neighboring systems charge new customers between $2,000 and $4,000 in total for tap fees and impact fees.

Based on these and other consideration, the Utilities Department has concluded that it would be appropriate for the County to establish the Impact Fee at $2,250 per RDU at this time. This level of contribution would appear to reflect a reasonable and proportionate contribution by new customers to the cost of the capacity required to serve them. Coupled with the $750 service initiation fee that Council is considering, the fees required by the System would not appear unduly burdensome and would be consistent with the fees charged by other systems.

In assessing proportionality, the Utility Department has also duly considered the fact that:

- Sewer demands, unlike demands for more traditional governmental services like police, fire, library and school services, are objectively quantifiable in terms of the RDUs of capacity that the Department of Health and Environmental Control requires to be reserved for each premises constructed. The capacity reserved in the System for a specific premise cannot be assigned or attributed to any other premises.
- The facilities that developers and owners construct to connect their properties to the District's transmission system in almost all cases benefit only the individual properties they are developing.
- Developers and property owners who connect to the System do not in any other way subsidize the provision of sewer service to other customers.

The recommended fee level set forth here is based on the information currently available to the Department. The County should carefully monitor costs, needs, inflation and revenues going forward and should make adjustments in level of the Impact Fee as future circumstances might warrant.

Basis for Calculating Impact Fees for Individual Customers

Customers and developers will be charged Impact Fees based on the specific RDUs of wastewater capacity represented by a) the demands represented by the sewer availability letters they request from the County; b) the demands represented by premises customers seek to connect to the System where no sewer availability letter has been required; or c) the demands represented by industrial or commercial customers seeking to increase their authorized discharge into the System. At present, one RDU is equivalent to a projected wastewater loading of 400 gallons per day. The RDUs for specific customers shall be computed using standard equivalency criteria promulgated from time to time by the South Carolina Department of Health and Environmental Control or the County may, in the future, determine to adopt a System-specific set of criteria.

Use of the Impact Fee

Impact Fees shall be used for capital Improvements to the System including the payment of debt service on capital Improvements such as those currently under construction. The Capital Improvement Plan sets forth the current plan and sequencing of those capital Improvements. However, the County reserves the right to amend or modify the plan, or to change the Improvements on which the Impact Fees are to be expended, so long as the proceeds of the Impact Fees are spent on capital Improvements to the System.

Additional Costs of the Improvements

Considering the number of RDUs of capacity that are being requested or anticipated to be requested at this time, Impact Fees set at $2,250 per RDU is estimated to generate significantly less than the $ 28,073,684 that the County will be required to pay to complete and pay financing cost on the Improvements. Impact Fee revenues will be used either to pay capital costs for the Improvements directly or to pay debt service on bonds issued to finance the Improvements. The remaining cost of the Improvements will be defrayed through charges to existing customers of the System and System revenues as they become available. No grants related to the Improvements have been obtained to date and grants are not anticipated to defray a material portion of the cost of the Improvements going forward.

The County reserves the right to review and revise the level at which Impact Fees are set at any time in the future.

Collection of Impact Fees

Impact Fees will be collected in cash by the Planning and Zoning Department at the time sewer capacity letters, construction permits, or increased discharge authorizations are issued to customers. Proof of payment of the Impact Fees will be required as a condition of issuance of sewer capacity letters, or construction permits in areas where the System provides public sewer service. Where sewer capacity/availability letters are requested, the County Administrator may allow the payment to be made no more than 30 calendar days after the issuance of the sewer availability letter, and may rescind any letter or associated capacity commitments if timely payment is not made. This provision is specifically allowed to create flexibility in situations where

development loan funding cannot be obtained until after availability letters for the development are in hand.

Premises that seek to connect to the System where no sewer availability letter was required will be charged the Impact Fee at the time they seek authorization to connect. For existing industrial customers or other customers seeking to increase their permitted discharge volumes into the System, the Impact Fees will be collected at the time the County agrees to increase the allowable discharge volumes into the System. Only one Impact Fee will be collected for each new RDU of sewer service.

Service premises that have been connected to the System without due payment of a required the Impact Fee will be disconnected until the fee is paid in full with interest at the statutory rate applicable to civil judgments in the State of South Carolina..

APPENDIX A FOR EXHIBIT B
ADDENDUM – KERSHAW COUNTY SEWER CIP 2008-2013

Due to the volatile construction market including the cost of steel, concrete, and petroleum products the estimates of project costs have been updated to adjust for future price increases. These increases are inflation driven and are therefore dependent on the time at which the projects have been projected to begin. Based on the volatility of the market the rate of inflation has been forecast at 5% per annum using the following formula.

$$Inflation\ Adjustment = \left(Const.\ Subtotal * 1.05^{Year\ of\ Project - 2008}\right) - Const.\ Subtotal$$

The following adjusted tables include provisions for this inflation and should replace the tables in the Kershaw County Sewer Capital Improvements Plan.

KELSEY RIDGE/STEVEN CAMPBELL DRIVE CONSTRUCTION ESTIMATE

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	200 gpm Duplex Pump Station	1	ls	$200,000.00	$200,000
2	Force Main				
	6-Inch PVC	2,900	lf	$25.00	$72,500
	6-Inch DIP	100	lf	$35.00	$3,500
	Air Release Valves	1	ea	$4,000.00	$4,000
3	320 gpm Duplex Pump Station	1	ls	$250,000.00	$250,000
4	Force Main				
	8-Inch PVC	9,750	lf	$30.00	$292,500
	8-Inch DIP	250	lf	$40.00	$10,000
	Air Release Valves	1	ea	$4,000.00	$4,000
5	Connection to Gravity Sewer	1	ls	$5,000.00	$5,000
				SUBTOTAL	$841,500
				ONE YEAR INFLATION ADJUSTMENT	$42,080
				ENGINEERING & CONTINGENCY (25%)	$220,900
				TOTAL	**$1,104,480**

ELGIN #4 PUMP STATION UPGRADE CONSTRUCTION ESTIMATE

Item	Description	Qty	Unit	Unit Cost	Total Cost
1	Upgrade of Pumps and Panels	1	ls	$40,000.00	$40,000
2	Rehabilitation of Wetwell	1	ls	$20,000.00	$20,000
				SUBTOTAL	$60,000
				ENGINEERING & CONTINGENCY (25%)	$15,000
				TOTAL	**$75,000**

ELGIN #2 PUMP STATION UPGRADE CONSTRUCTION ESTIMATE					
Item	Description	Qty	Unit	Unit Cost	Total Cost
1	600 gpm Duplex Pump Station	1	ls	$300,000.00	$300,000
2	Force Main				
	8-Inch PVC	4,100	lf	$30.00	$123,000
	8-Inch DIP	400	lf	$40.00	$16,000
	Air Release Valves	1	ea	$4,000.00	$4,000
3	Connection to Gravity Sewer	1	ls	$5,000.00	$5,000
				SUBTOTAL	$448,000
				THREE YEAR INFLATION ADJUSTMENT	$70,620
				ENGINEERING & CONTINGENCY (25%)	$129,660
				TOTAL	**$648,280**

ELGIN #1 PUMP STATION UPGRADE CONSTRUCTION ESTIMATE					
Item	Description	Qty	Unit	Unit Cost	Total Cost
1	800 gpm Duplex Pump Station	1	ls	$400,000.00	$400,000
2	Force Main				
	10-Inch PVC	13,000	lf	$35.00	$455,000
	10-Inch DIP	1,500	lf	$45.00	$67,500
	Air Release Valves	1	ea	$4,000.00	$4,000
3	Connection to Gravity Sewer	1	ls	$5,000.00	$5,000
				SUBTOTAL	$931,500
				THREE YEAR INFLATION ADJUSTMENT	$146,830
				ENGINEERING & CONTINGENCY (25%)	$269,580
				TOTAL	**$1,347,910**

BALDWIN PUMP STATION REHABILITATION CONSTRUCTION ESTIMATE					
Item	Description	Qty	Unit	Unit Cost	Total Cost
1	Replacement of Existing PS	1	ls	$200,000.00	$200,000
				SUBTOTAL	$200,000
				ONE YEAR INFLATION ADJUSTMENT	$10,000
				ENGINEERING & CONTINGENCY (25%)	$52,500
				TOTAL	**$262,500**

HIGHWAY 34 (RABON'S) DEVELOPMENT CONSTRUCTION ESTIMATE					
Item	Description	Qty	Unit	Unit Cost	Total Cost
1	Gravity Sewer				
	12-Inch PVC	6,400	lf	$75.00	$480,000
	12-Inch DIP	600	lf	$85.00	$51,000
	Jack & Bore	150	lf	$300.00	$45,000
2	Manholes	30	ls	$2,500.00	$75,000
				SUBTOTAL	$651,000
				ONE YEAR INFLATION ADJUSTMENT	$32,550
				ENGINEERING & CONTINGENCY (25%)	$170,890
				TOTAL	**$854,440**

CLARIANT PUMP STATION CONSTRUCTION ESTIMATE					
Item	Description	Qty	Unit	Unit Cost	Total Cost
1	350 gpm Duplex Pump Station	1	ls	$240,000.00	$240,000
2	Force Main				
	8-Inch PVC	4,000	lf	$30.00	$120,000
	8-Inch DIP	400	lf	$40.00	$16,000
	Air Release Valves	1	ea	$4,000.00	$4,000
				SUBTOTAL	$380,000
				TWO YEAR INFLATION ADJUSTMENT	$38,950
				ENGINEERING & CONTINGENCY (25%)	$104,740
				TOTAL	**$523,690**

WHITING WAY PUMP STATION CONSTRUCTION ESTIMATE					
Item	Description	Qty	Unit	Unit Cost	Total Cost
1	1150 gpm Duplex Pump Station	1	ls	$550,000.00	$550,000
2	Force Main				
	12-Inch PVC	27,000	lf	$45.00	$1,215,000
	12-Inch DIP	500	lf	$55.00	$27,500
	Directional Bore	200	lf	$250.00	$50,000
	Air Release Valves	3	ea	$4,000.00	$12,000
				SUBTOTAL	$1,854,500
				TWO YEAR INFLATION ADJUSTMENT	$190,090
				ENGINEERING & CONTINGENCY (25%)	$511,150
				TOTAL	**$2,555,740**

KAWASHIMA PUMP STATIONS CONSTRUCTION ESTIMATE					
Item	Description	Qty	Unit	Unit Cost	Total Cost
1	1850 gpm Duplex Pump Station	2	ls	$600,000.00	$1,200,000
2	Force Main				
	16-Inch PVC	26,000	lf	$55.00	$1,430,000
	16-Inch DIP	500	lf	$65.00	$32,500
	Directional Bore	200	lf	$300.00	$60,000
	Air Release Valves	2	ea	$4,000.00	$8,000
				SUBTOTAL	$2,730,500
				TWO YEAR INFLATION ADJUSTMENT	$279,880
				ENGINEERING & CONTINGENCY (25%)	$752,600
				TOTAL	**$3,762,980**

INFLUENT PUMP STATION CONSTRUCTION ESTIMATE					
Item	Description	Qty	Unit	Unit Cost	Total Cost
1	4.0 MGD Duplex Pump Station	1	ls	$1,000,000.00	$1,000,000
2	Force Main				
	24-Inch PVC	3,000	lf	$80.00	$240,000
	24-Inch DIP	300	lf	$90.00	$27,000
				SUBTOTAL	$1,267,000
				ENGINEERING & CONTINGENCY (25%)	$316,750
				TOTAL	**$1,583,750**

WWTP EXPANSION CONSTRUCTION ESTIMATE					
Item	Description	Qty	Unit	Unit Cost	Total Cost
1	2.0 MGD Expansion	1	ls	$7,000,000.00	$7,000,000
				SUBTOTAL	$7,000,000
				FIVE YEAR INFLATION ADJUSTMENT	$1,933,970
				ENGINEERING & CONTINGENCY (25%)	$2,233,490
				TOTAL	**$11,167,460**

RECOMMENDED PROJECTS	PROJECT COSTS	YEAR OF PROJECT
KELSEY RIDGE/STEVEN CAMPBELL DRIVE	$ 1,104,480	2009
ELGIN #4 PUMP STATION UPGRADE	$ 75,000	2008
ELGIN #2 PUMP STATION UPGRADE	$ 648,280	2011
ELGIN #1 PUMP STATION UPGRADE	$ 1,347,910	2011
BALDWIN PUMP STATION REHABILITATION	$ 262,500	2009
HIGHWAY 34 (RABON'S)	$ 854,440	2009
CLARIANT PUMP STATION	$ 523,690	2010
WHITING WAY PUMP STATION	$ 2,555,740	2010
KAWASHIMA PUMP STATION	$ 3,762,980	2010
INFLUENT PUMP STATION	$ 1,583,750	2008
WWTP EXPANSION	$ 11,167,460	2012-2013
TOTAL	$ 23,886,230	

	Total Payment	Interest	Principal
2008 Projects	1,949,542.62	290,792.62	1,658,750.00
2009 Projects	2,610,853.31	389,433.31	2,221,420.00
2010 Projects	8,041,941.02	1,199,531.02	6,842,410.00
2011 Projects	2,346,138.58	349,948.58	1,996,190.00
WWTP Expansion	13,125,208.08	1,957,748.08	11,167,460.00
TOTALS	**28,073,683.61**	**4,187,453.61**	**23,886,230.00**